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**REMARKS****AUG 18 2006**

Applicants have corrected their response to the first office action because they received a Notice of Non-Compliant Amendment from the Examiner dated July 19, 2006. Also, by way of this communication applicants have canceled claims 2 and 3 and incorporated the limitation of claim 2 into claim 1. Claim 3 related to a multifaceted tubular nanostructure, which is not the subject of this invention. The subject of the present invention is the so-called "ribbon" nanostructure. That is, one comprised of separate non-continuous graphite sheets. As previously mentioned, this was the subject of claim 2, which has been canceled.

**Rejection under 35 U.S.C. 103(a)**

Claims 1-19 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Baker et al. article, pages 254-255 in particular, for making carbon nanotubes from CO and H<sub>2</sub> using a powder catalyst that could be Fe or Fe:Cu.

**Examiner's Position**

It is the Examiner's position that the Baker et al. article differs in the temperature, however the 600° used is deemed to be obvious from the claims in view of the variation of "about" and further noting that using a higher temperature than taught is an obvious measure to speed the reaction rate.

The Examiner further comments that as for claims 2,3,13 and 14 the structures appear depicted and no difference is seen in the product due to the similarity of the process steps.

**Applicants' Position**

It is applicants' position that the Baker et al. article does not teach a process for producing a "ribbon" type of graphite nanostructure. That is, one that is comprised of separate non-continuous graphite sheets that are substantially parallel to the longitudinal axis of the nanostructure. The Baker et al. article teaches the production of either graphite nanotubes

wherein the graphite sheets are oriented substantially parallel to the longitudinal axis of the nanotube but wherein the sheets are connected (not separate) to form a multifaceted tubular structure or wherein the sheet is tubular in shape to form a substantially cylindrical nanotube. The other nanostructures taught in the Baker et al. article are graphite nanofibers wherein the graphite sheets are oriented either perpendicular or at an angle (herringbone) to the longitudinal axis of the nanofiber. There is no teaching or suggestion in the Baker et al. article that a so-called "ribbon" nanostructure can be produced. The nanotubes taught in the Baker et al. article are produced from the interaction of an Fe powder catalyst supported on carbon when heated in a  $C_2H_4/CO/He$  mixture at  $600^{\circ}C$ . The currently claimed process for producing "ribbon" type graphite nanostructures comprises the decomposition of a mixture of  $CO/H_2$  over Fe, Fe:Ni or Fe:Cu catalysts at temperatures from about  $625^{\circ}$  to  $725^{\circ}C$ .

Therefore, in view of the above, it is requested that the Examiner reconsider and withdraw this rejection.

**Rejection Under 35 U.S.C. 102(b) and 103(a)**

Claims 16-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Baker et al.

**Examiner's Position**

It is the Examiner's position that Baker et al. does not explicitly teach the exact process as instantly claimed, but appears to make the same product. The Examiner continues by saying that where the Examiner has found a substantially similar product as in the applied art the burden of proof is shifted to applicant to establish that their product is patentably distinct.

**Applicants' Position**

Applicant maintains that the products taught in the Baker et al. article are either graphite nanofibers wherein the graphite sheets are oriented perpendicular to at an angle to the longitudinal axis of the nanofiber, or they are graphite nanotubes. The product that is produced